



# MEMORANDUM

## Missouri Department of Transportation Design General Headquarters

**TO:** All General Headquarters and District Offices

**FROM:** Diane Heckemeyer  
State Design Engineer

**DATE:** April 12, 2004

**SUBJECT:** Design  
Development Manual Letter No. 4, 2004  
Project Development Manual Revisions

Questions concerning the Project Development Manual revisions should be directed to General Headquarters, Design Standards Section, Dan Tschirgi (573) 526-2924 or Bruce Green (573) 751-9248.

NOTE	EXPLANATION
1	These revisions are being issued primarily to change the depth of polymer modified asphalt used in asphalt pavements for projects to be let July 2004 and later. Other changes and corrections are effective immediately.

ITEM	DESCRIPTION OF REVISION
<b>Volume I Table of Contents</b>	Revision dates changed for appropriate sections.
<b>Section 1-02</b>	Revisions were made to Subsection 1-02.11(1) to provide more flexibility in the requirements for major and non-major scoping changes. A minimum amount of \$250,000 was established for a major scope change. Also, revisions were made to Subsections 1-02.11(1), 1-02.12(5) and 1-02.12(9) stating that project scope change approval letters should be retained in the project estimate file.
<b>Figure 4-05.13</b>	This revised figure issued 3-15-04 was an incorrect version. The yield lines should have been dashed lines and not shark's teeth. The figure has been replaced with the correct version.
<b>Volume II Table of Contents</b>	Revision dates changed for appropriate sections.
<b>Section 6-03</b>	In Subsections 6-03.1(1) and (2), the number of ESALs for heavy and medium duty pavements were revised to be consistent with current criteria and Figures 6-03.11, 6-03.12 and 6-03.13. Heavy duty pavements consist of routes with more than 50 million accumulative ESALs in a 35 year period. Medium duty pavements consist of routes with either 25-50 million accumulative flexible ESALs or 40-50 million accumulative rigid ESALs for a 35 year period. In Subsection 6-03.3(1), the life

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	<p>cycle adjustment factor for diamond grinding of concrete was changed from 20 years to 25 years, which is the current criteria.</p> <p>In Subsections 6-03.3(2) and 6-03.4(4), the thickness of the top layer of asphalt using polymer modified asphalt was changed from 4" to 4 ¾".</p>
<b>Figure 6-03.06</b>	The thickness of the top layer of asphalt using polymer modified asphalt was changed from 4" to 4 ¾". The mix designation was added to the cross section for the base layer and the double asterisk note was revised to address only the PG type in the total asphalt thickness.
<b>Figure 6-03.7</b>	The thickness of the top layer of asphalt using polymer modified asphalt was changed from 4" to 4 ¾". The mix designation was added to the cross section for the base layer and the double asterisk note was revised to address only the PG type in the total asphalt thickness.
<b>Figure 6-03.8</b>	The thickness of the top layer of asphalt using polymer modified asphalt was changed from 4" to 4 ¾". The double asterisk note was revised to address only the PG type in the total asphalt thickness. A triple asterisk note was added with the base layer mix types.
<b>Figure 6-03.9</b>	The thickness of the top layer of asphalt using polymer modified asphalt was changed from 4" to 4 ¾". The single asterisk note was revised to address only the PG type in the total asphalt thickness. A double asterisk note was added with the base layer mix types.
<b>Section 6-07</b>	<p>Subsection 6-07.1 payment for asphalt was clarified. Payment by the square yard is only used for full depth asphaltic concrete on alternate bid projects. Payment for all other asphalt should be by the ton.</p> <p>Table 6-07.3 contained a SP125BSM mix in the options for a surface mixture on a light duty pavement. This mix will not be used in this application and was removed from the table. Also, options for a SP250 mix was added for the underlying course for overlays, and the footnote was revised to address the conditions that may warrant a SP250 mix. Finally, the SP190C mix was removed as an option for light duty full depth pavement base layer.</p>
<b>Figure 6-03.13</b>	Route 136 from Nebraska state line to Route I-29 was removed from the list of medium duty pavements. This route should be in the light duty category.
<b>Bid Items</b>	The list of bid items has been revised in accordance with the amended asphalt items issued 4-12-04.

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